



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/045,955

11/06/2001

Sridhar Alagar

014940-001910US

2750

47372

7590

03/30/2005

BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 GATEHOUSE ROAD
SUITE 100 EAST
FALLS CHURCH, VA 22042-1248

EXAMINER

STEVENS, ROBERTA A

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/045,955 | Applicant(s) ALAGAR ET AL. | |
| | Examiner Roberta A Stevens | Art Unit 2665 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-18 is/are allowed.
- 6) ☒ Claim(s) 1,2,6-8,10-12,19,22-24,26-29,31-34 and 36-39 is/are rejected.
- 7) ☒ Claim(s) 3-5,9,20,21,25,30 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 6-7, 10-12, 19, 22, 23, 26-29, 31-34 and 36-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu (U.S. 5914798).

3. Regarding claim 1, Liu teaches (figs. 5) a system re-routing signals from an affected optical path in an optical network, comprising: a first node configured to generate a message upon detecting a condition indicating that the signals from the affected optical path need to be re-routed via a protection path to the first node, configured to, upon generating the message, reserve a wavelength in the protection path, wherein the wavelength corresponds to the signals from the affected optical path so as to allow the signals from the affected optical path to be re-routed via the protection path (col. 4, lines 45-55); at least one intermediate node configured to receive and transmit the message (col. 4, lines 56-67); and a second node configured to receive the message from the intermediate node and receive the wavelength in the protection path based on the information provided in the message, upon receiving the message, generating an acknowledgment message to be transmitted to the first node via the at least one intermediate node (col. 5, lines 1-10).

Art Unit: 2665

4. Regarding claim 2, Liu teaches (col. 5, lines 29-55) the intermediate node to reserve the wavelength in the protection path based on information provided in the message.
5. Regarding claims 6 and 22, Liu teaches (col. 7, lines 25-43) upon receiving the acknowledgment message, the intermediate node and the first node are ready to carry the signals re-routed from the affected optical path via the protection path using the reserved wavelength.
6. Regarding claims 7, 23 and 36, Liu teaches (col. 7, lines 25-43) upon receiving the acknowledgment message, and prior to the intermediate node and the first node become ready to carry the signals re-routed from the affected optical path via the protection path, check to determine whether the message is still valid.
7. Regarding claims 10, 26, 31 and 37, Liu teaches (figs. 5) the optical network is a bi-directional path switched ring network
8. Regarding claims 11, 27, 32 and 38, Liu teaches (col. 6, lines 39-42) the condition is caused by a failure relating to the affected optical path.
9. Regarding claims 12, 28, 33 and 39, Liu teaches (col. 6, lines 55-61) the condition is caused by network maintenance to be performed on the affected optical path.

Art Unit: 2665

10. Regarding claim 19, Liu teaches (figs. 5) an optical network, comprising: a destination node configured to receive signals transmitted via an optical path, and generate a message upon detecting a condition indicating that the signals from the affected optical path need to be re-routed via a protection path to the first node, configured to, upon generating the message, reserve a wavelength in the protection path, wherein the wavelength corresponds to the signals from the affected optical path so as to allow the signals from the affected optical path to be re-routed via the protection path (col. 4, lines 45-55); at least one intermediate node configured to receive and transmit the message and reserve the wavelength in the protection path based on information provided in the message (col. 4, lines 56-67); and a source node configured to transmit the signals via the optical path and upon receiving the message from the intermediate node, reserve the wavelength in the protection path so as to allow the signals to be re-routed from the optical path to the protection path and generate an acknowledgment message to be transmitted to the destination node via one or more intermediate nodes (col. 5, lines 1-10).

11. Regarding claim 29, Liu teaches (figs. 5) a node for use in an optical network, comprising: first control logic configured to: detect a condition indicating that the signals from a first optical path to the node need to be re-routed via a first protection path in order to reach the node (col. 4, lines 45-53); upon detecting the condition generate a message (col. 4, lines 54-57); reserve a first wavelength in the protection path, corresponding to the signal from the first optical path; forward the message to a first neighboring node; and second control logic configured to: receive an incoming message from a second neighboring node; examine the message and reserve a second wavelength in a second protection path, corresponding to the signals from a second

Art Unit: 2665

optical; and generate and transmit an acknowledgment message to the second neighboring node, and if the signals from the second optical path are not originated from the node, forward the message to an adjacent node (col. 5, lines 67)

12. Regarding claim 34, Liu teaches (figs. 6A-6C) an apparatus and method for rerouting signals from an affected optical path in an optical network comprising: detecting a condition at an destination node that is to reserve the signals, the condition indicating that the signals need to be rerouted via a protection path in order to reach the destination node (col. 4, lines 45-55); generating a message that includes information relating to the signals, directing the destination node to reserve a wavelength in the protection path, wherein the wavelength corresponds to the signals so as to allow the signals to be rerouted via the protection path (col. 4, line 56 – col. 5, line 5), forwarding the message via one or more intermediate nodes in a source node that originates the signals; directing each intermediate node which receives the message to reserve the wavelength in the protection path; upon receiving the message at the source node, directing the source node to reserve the wavelength in the protection path and generate and transmit an acknowledgement message to the destination node via the one or more intermediate nodes (col. 5, lines 55-67).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 8 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Doverspike (U.S. 6097696)

15. As mentioned above Liu teaches all of the limitations of claim 1.

16. Liu does not teach message type, first node, second node, wavelength and failure type IDs.

17. Doverspike teaches (Table 1) Fault type, termination points, message types, and connect map confirmations. It would have been obvious to one of ordinary skill in the art to adapt this to Liu's system to provide quality of service within the system.

Allowable Subject Matter

18. Claims 13-18 are allowed.

19. Claims 3-5, 9, 20, 21, 25, 30 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2665

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A Stevens whose telephone number is 571-272-3161.

The examiner can normally be reached on M-F 9:00am-5:30pm.

21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roberta A Stevens
Examiner
Art Unit 2665

A handwritten signature in black ink, appearing to read 'STEVEN NGUYEN', with a stylized flourish at the end.

**STEVEN NGUYEN
PRIMARY EXAMINER**